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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/091,771	03/04/2002	Yao-Hao Chang		6829
25859	7590	10/20/2003		
WEI TE CHUNG FOXCONN INTERNATIONAL, INC. 1650 MEMOREX DRIVE SANTA CLARA, CA 95050				
			EXAMINER KNAUSS, SCOTT A	
			ART UNIT 2874	PAPER NUMBER

DATE MAILED: 10/20/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No. 10/091,771	Applicant(s) CHANG, YAO-HAO	
Examiner Scott A Knauss	Art Unit 2874	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 August 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 and 12-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 5-8 is/are allowed.
- 6) ☒ Claim(s) 1, 2, 9, 10 and 12 is/are rejected.
- 7) ☒ Claim(s) 3, 4 and 13-15 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 08 August 2003 is: a) ☒ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s) _____. |
| 2) <input type="checkbox"/> Notice of Draftsman's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____. | 6) <input type="checkbox"/> Other: |

DETAILED ACTION

Response to Amendment

1. The amendment filed 8/8/03 has been entered and carefully considered by the examiner. The previous rejection has been withdrawn, and the following new rejection applied. The new rejection is necessitated by amendment and thus made **FINAL**.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 6,185,358 (Park) in view of US 6,196,729 (Stephenson).

Regarding claim 1, fig. 2 of Park shows a conventional attenuator comprising:

Input (#30a) and output (#30b) optical fibers

First (#32a) and second (#32b) ferrules receiving the input and output fibers, respectively.

A thin film filter (#36) having first and second surfaces, the surfaces not being parallel to end surfaces of the input and output fibers (see figure)

A case (cover) #38 retaining and protecting the optical attenuator.

Park does not, however, disclose the use of a ND filter, and does not disclose a plurality retaining devices retaining the ferrules and filter.

First, regarding the ND filter, Park does disclose that the filter #36 is a thin film filter coated to form a multilayer structure of various kinds of metal elements (col. 4, lines 8-13). Since an ND filter is in fact a well known thin film filter having layers of various metal elements, it would have been obvious to one of ordinary skill in the art to substitute an ND filter for the filter #36 of Park, for the purpose of providing attenuation of optical signals.

Second, although Park does not disclose the plurality of retaining elements to hold the filter and ferrules, such a configuration is well known in the art. Stephenson, in particular, discloses in fig. 15 the use of a plurality of retaining elements (#162, #164, #18, #110) which hold a attenuating filter #160 and a pair of ferrules #30 within a casing (#88 in fig. 17)

Therefore it would have further been obvious to one of ordinary skill in the art to further modify the attenuator of Park to use a casing having a plurality of retaining

devices as disclosed by Stephenson, for the purpose of securely holding a filter and a pair of ferrules.

Regarding claim 2, the filter is placed at a fixed angle of 8 degrees (see col. 4, lines 33-35), thus providing fixed attenuation.

5. Claims 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 6,185,358 (Park)

Regarding claim 9, Park discloses an optical attenuator comprising:

Opposite input and output fibers #30a,b enclosed in first and second ferrules #32a,b with confrontation ends of the first and second ferrules spaced from each other

A thin film filter positioned between the confrontation ends

A retainer (#36) holding the first and second ferrules and the filter in such a manner that they move together axially (for example, if someone picked up and moved the device, they would move together)

The filter having first and second surfaces, the surfaces not being perpendicular to an incident beam (because the filter has an 8 degree angle)

Park does not, however, disclose the use of a ND filter,

Nevertheless, Park does disclose that the filter #36 is a thin film filter coated to form a multilayer structure of various kinds of metal elements (col. 4, lines 8-13). Since an ND filter is in fact a well known thin film filter having layers of various metal elements, it would have been obvious to one of ordinary skill in the art to substitute an ND filter for the filter #36 of Park, for the purpose of providing attenuation of optical signals.

Regarding claim 10, the first and second surfaces are further not parallel to end surfaces of the two optical fibers.

6. Claims 9 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 06-294911 (Nishina) in view of JP 62-121405 (Umeki).

Regarding claim 9, Nishina discloses in figs. 1 and 2:

Opposite input and output fibers #2 enclosed in first and second ferrules (#3,#5) with confrontation ends of the first and second ferrules spaced from each other.

A thin film filter #19 positioned between the confrontation ends

A retainer #18 holding the first and second ferrules to have the first and second fibers and the filter move together axially

The thin film filter having first and second surfaces, and it is clear from the drawings in figs. 1 and 2 that the filter has an angle to beams traveling through fibers #2 that is not perpendicular

Nishina does not, however, disclose the use of an ND filter as film #19. Nevertheless, it is well known to coat the ends of ferrules to produce a film that serves as an ND filter. Umeki, in particular, discloses in fig. 1 coating a series of films #4 that serve as an ND filter onto the end of a ferrule (#2 or #3).

Therefore it would have been obvious to one of ordinary skill in the art to substituting known types of attenuating films onto the ferrules disclosed by Nishina, for the purpose of providing fixed attenuation of optical signals.

Regarding claim 12, If the attenuator of Nishina is modified such that film #19 is an ND filter, the filter is attached to the terminal of a first ferrule #5 and spaced from the terminal of a second ferrule #3 which confronts the terminal of the first ferrule.

Allowable Subject Matter

7. Claims 5-8 were previously allowed.
8. Claims 3,4 and 13-15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Regarding claim 3, the prior art fails to disclose an attenuator having the limitations of claim 1, and further having a ND filter attached to a terminal of the first ferrule and spaced from a terminal of the second ferrule which confronts the terminal of the first ferrule, and the ND filter has a refractive index matching the refractive indices of the input and output fibers.

Regarding claim 4, the prior art fails to disclose an optical attenuator as set forth in claim 1, further having a tube, a shell, a sleeve, a spring, a latch, a housing, and a cover.

Regarding claims 13 and 14, the prior art fails to teach an attenuator as set forth in claim 9, further comprising a retainer having a spring, a sleeve, a tube, and a shell, wherein the spring and sleeve are received in a first receptacle of the shell, and the tube is partially received in a second receptacle of the shell.

Regarding claim 15, the prior art fails to teach an attenuator as set forth in claim 9, further having a retainer including a sleeve recoverably urged by a spring, the sleeve

defining a cavity divided by an inner ejector to form two separate space receiving first and second ferrules, wherein a narrowed space between the two spaces surrounded by the inner ejector accommodates the ND filter.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

JP 60-138502 and 62-211606, as well as US 2002/0181928 and 5,706,379 disclose other relevant devices for holding attenuating devices and ferrules.

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Scott A Knauss whose telephone number is (703) 305-5043. The examiner can normally be reached on 9-5 Monday-Friday.

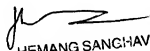
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rodney Bovernick can be reached on (703) 308 - 4819. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0530.

Scott Knauss

Art Unit 2874

sak


HEMANG SANGHAVI
PRIMARY EXAMINER